AMENDMENTS TO THE DRAWINGS

Four (4) sheets of formal, replacement drawings are provided as an appendix to this response. No changes to the drawings have been made by way of this response.

REMARKS

Favorable reconsideration and allowance of the subject application are respectfully requested. Claims 1-24 are pending in the present application, with claims 1, 10, 12, 13, 22, and 24 being independent. Claims 3, 12, and 24 have been amended. The amendments to claims 3, 12, and 24 are fully supported by the original written description, including, but no limited to original claims 1, 12, and 24, Fig. 1, and the supporting description at paragraphs 0032-0034 of the specification.

Specification

Applicant appreciates the Examiner's assistance with respect to the Abstract of the Disclosure. Without conceding the propriety of the Examiner's objection, but merely to expedite the prosecution of the present application, Applicant has enclosed a replacement abstract as an appendix to this response as requested by the Examiner in the Office Action. Accordingly, this objection has been rendered moot.

Information Disclosure Statement

Applicant appreciates the Examiner's indication of acceptance and consideration of the information disclosure statement filed on June 21, 2003.

Drawings

Applicant appreciates the Examiner's assistance with respect to the drawings. Four (4) sheets of formal, replacement drawings are provided as an attachment to this response as requested by the Examiner. No new matter has been added, and no amendments have been made to the drawings. Accordingly, Applicant submits that no further action is required with respect to the drawings.

Claim Rejections under 35 U.S.C. §102

Claims 12 and 24 have been rejected under 35 U.S.C. § 102(e) as being unpatentable over Belanger (U.S. Patent Publication No. 2003/0137938). This rejection is respectfully traversed.

Without conceding the propriety of the Examiner's rejections, but merely to expedite the prosecution of the present application, Applicant has amended claims 12 and 24 to include the recitation of introducing a keep-alive signal packet into silence periods of an original packet sequence, thereby converting the original packet sequence into a modified packet sequence, wherein the keep-alive signal packet consists of a source description (SDES) RTCP packet with a source count (SC) of 0. See, e.g., paragraph 0033 of the present application for an exemplary implementation. Applicant submits that Belanger does not describe or suggest the above-identified feature of claims 12 and 24. In fact, the Examiner has not relied upon Belanger to suggest this feature. Accordingly, this rejection should be withdrawn.

Accordingly, claims 12 and 24 are patentable over Belanger for at least this reason.

Claim Rejections Under 35 U.S.C. § 103

Claims 1, 8-10, 13, and 22 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Fraser (U.S. Patent No. 6,487,200) in view of Belanger et al. (U.S. Patent Publication No. 2003/0137938). Claims 2-4, 6, 7, 11, 14-16, 18-21, and 23 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Fraser in view of Belanger et al., and further in view of Huart et al. (U.S. Patent Publication No. 2006/0122835). Claims 5 and 17 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Fraser in view of Belanger et al., and further in view of Huart et al., and further in view of Gregson (U.S. Patent No. 6,819,655). These rejections are respectfully traversed.

Claim 1 recites, in part, *a method for detecting a potential problem in the transmission of a sequence of packets via an Internet Protocol (IP) network. A keep-alive signal packet is introduced into each of the extended silence periods thereby converting the original packet sequence into a modified packet sequence.* The modified packet sequence is transmitted over the IP network. *Whenever at least one packet of said modified packet sequence has not been received at the signal destination point is detected during a specified time interval.* (Emphasis Added.)

The Office has admitted that Fraser does not teach or suggest detecting a potential problem in the packet transmission sequence by detecting whenever at least one packet of the modified packet sequence has not been received at the signal

destination point during a specified time interval. See, e.g., Office Action mailed March 19, 2007, page 6, lines 5-11. In order to overcome this shortcoming, the Office relies upon Belanger which allegedly describes a congestion reduction method in a network where an endpoint detects the dropping of packets due to congestion by detecting holes in the packet sequence numbers. As cited by the Office, paragraph 0016 describes detecting dropped packets by first examining known sequences, e.g., a known sequence number within the received packet's headers that specifically allows the endpoint 101 to infer that packets are dropped by searching for holes in the known sequence. See, e.g., paragraph 0016 of Belanger. Therefore, in Belanger, in order to infer dropped packets, the known sequences are determined from the received packets' headers and must be known or gleaned from the received packets.

Further, Belanger specifically cites relying upon known sequences within RTP packets to determine congestion. See, e.g., paragraph 0018 of Belanger. However, Belanger does not suggest or describe inferring dropped packets or out of sequence holes from any silence marker or keep-alive signals. In fact, neither Fraser or Belanger describe relying upon inferring dropped packets or out of sequence holes form any silence marker or keep-alive signals, e.g., Belanger specifically relies upon examination of headers within the packets themselves to determine an expected sequence or out-of sequence data packet. Accordingly, Applicant submits that the suggested combination of the prior art of record would not be capable of detecting holes in any silence packets as neither reference describes any way of detecting holes in the sequence of silence packets. Therefore, this rejection is improper as the resulting combination does not describe or suggest a method for detecting whenever at least one packet of said

modified packet sequence has not been received at the signal destination point during a specified time interval. Even if the generation of silence packets as described by Fraser were modified to include the dropped packet detection of Belanger, the system of Belanger merely looks for dropped data packets in the original data packets, e.g., RTP packet signals for congestion (not for any silence markers, keep-alive signals, and/or RCTP signals as described by Applicant in some of the dependent claims)

While the Office has suggested that it would have been obvious to one or ordinary skill in the art to modify Fraser to include the system of Belanger, the resulting combination would not operate to detect modified data packets, e.g., nothing in either of these references suggests a methodology for detecting modified data packets (e.g., including keep-alive signals and/or silence markers). The Office is reminded that in Fraser, the silence markers are inserted to assist in the use of short packets containing compressed speech, and optimize transmission of data. However, the silence markers in Fraser are not suggested as forming a modified data packet that can be analyzed for expected sequences, and thus, infer dropped packets from out-of-sequence silence packets. In fact, Fraser merely suggests that silence packets can be inserted to inform the system that a virtual circuit is still alive. However, neither Fraser and/or Belanger describe or suggest relying upon silence packets to detect holes in known sequences of data packets. Accordingly, this rejection should be withdrawn.

With respect to Huart and/or Gregson, Applicant submits that these references do not describe or suggest the shortcoming of Fraser in view of Belanger. In fact, these references have not been relied upon by the Examiner to advance these teachings.

Accordingly, independent claim 1, and each of its dependent claims, is patentable over Fraser, Belanger, Huart, and/or Gregson for at least this reason.

With respect to dependent claim 3 and independent claims 12 and 24, Applicant submits that none of the references relied upon by the Office describe or suggest a keep-alive signal packet consisting of source description (SDES) RTCP packets with a source count (SC) of 0. As described at paragraphs 0032-0040 of the present application, the incorporation of keep-alive signal packets having the recited structure provides several advantageous, overall results for the system, e.g., minimal overhead (such as reduced RTCP overhead), reduced bandwidth, and/or reduced failure detection time. While Huart describes RTCP packets, Huart does not describe the recited keep-alive signal packet of claim 3.

Accordingly, claims 3, 12 and 24 are patentable over Fraser, Belanger, Huart, and/or Gregson for at least this reason.

With respect to claims 10, 13 and 22, and as described above with respect to claim 1, Applicant submits that the alleged combination of Fraser in view of Belanger does not describe or suggest each and very limitation of these claims.

Claim 10 recites, in part, a method for detecting a potential problem in the transmission of a sequence of packets via an Internet Protocol (IP) network, including detecting whenever at least one packet of said modified packet sequence has not been received at the signal destination-point during a specified time interval. As discussed

above with respect to claim 1, Applicant submits that this feature is not described or suggested by the prior art of record. Therefore, claim 10, and each of its dependent claims is patentable over Fraser, Belanger, Huart, and/or Gibson for at least this reason.

Claim 13 recites, in part, means for detecting whenever at least one packet of said modified packet sequence has not been received at the signal destination point during a specified time interval. As discussed above with respect to claim 1, Applicant submits that this feature is not described or suggested by the prior art of record. Therefore, claim 13, and each of its dependent claims is patentable over Fraser, Belanger, Huart, and/or Gibson for at least this reason.

Claim 22 recites, in part, means for detecting whenever at least one packet of said modified packet sequence has not been received at the signal destination point during a specified time interval. As discussed above with respect to claim 1, Applicant submits that this feature is not described or suggested by the prior art of record. Therefore, claim 22, and each of its dependent claims is patentable over Fraser, Belanger, Huart, and/or Gibson for at least this reason.

Applicant does not acquiesce in the Examiner's characterizations of the art. For brevity and to advance prosecution, however, Applicant may have not addressed all characterizations of the art and reserves the right to do so in further prosecution of this or a subsequent application. The absence of an explicit response by Applicant to any

of the Examiner's positions does not constitute a concession of the Examiner's positions. The fact that Applicant's comments have focused on particular arguments does not constitute a concession that there are not other arguments for patentability of the claims. All of the dependent claims are patentable for at least the reasons given with respect to the claims on which they depend.

CONCLUSION

Applicant has made a diligent effort to place the claims in condition for allowance. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Matthew T. Shanley, Applicant's Attorney at 1.703.621.7140 so that such issues may be resolved as expeditiously as possible.

For these reasons, and in view of the above amendments, this application is now considered to be in condition for allowance and such action is earnestly solicited.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 50-1602 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Date: July 18, 2007

Respectfully Submitted,

Matthew T. Shanley
Attorney/Agent for Applicant
Reg. No. 47,074

McGrath, Geissler, Olds & Richardson, PLLC
PO BOX 1364
Fairfax, VA 22038-1364
Tel. 1.703.621.7140

Appendices A and B (as described herein)